

SILINKOVA-MALKOVA, E.; NAHLIK, F.; STAVA, Z.

Liver function tests in the treatment of syphilis with spironovan
and bismuth. Cas. lek. cesk. 90 no.51-52:1522-1525 28 Dec 51.
(CJML 21:5)

1. Of the Second Dermatological Clinic (Head--Prof. K. Hubschmann, M.D.)

HUBSCHMANN, I.:STAVA, Z.

Blood proteins in scleroderma, lupus erythematosus, and chronic
dermatitis atrophicans. Cesk. dermat. 27 no. 10:385-405 Dec 1952.

(CJML 23:5)

1. Of the Second Dermatological Clinic (Head--Prof. K. Hubschmann,
M. D.) of Charles University, Prague.

STAVE 3.

derm. Klin., Praha. *Melkersson-Rosenthaluv syndrom a jeho problematika. The Melkersson-Rosenthal syndrome and its problems CSL. DERM. 1953, 28/7 (283-292) Illus. 6

Two typical cases of the syndrome (recurrent oedema of lips, facial paresis and lingua plicata) are described. Lip biopsy showed lymphangioma in one case and the picture of cheilitis granulomatosa (Miescher) in the second, there being signs of Besnier-Boeck-Schaumann disease or of tb in the latter case. The attempts of some German authors to identify the syndrome with cheilitis granulomatosa or to negate its existence altogether seem to be premature. Excision proved successful. Schwank - Prague

SO: Excerpta Medica
Section XIII
Vol. 9 No. 1

STAVA, Z.

Considerations on theoretical principles of dermatologic roentgeno-therapy. Cesk. dermat. 28 no.8-9:396-413 Nov 1953. (CJML 25:5)

1. Of the Second Dermatological Clinic (Head--Prof. K. Hubschamnn, M.D.), Prague.

STAVA, Zdenek
HUBSCHMANN, Karel, MUDr prof.; STAVA, Zdenek, MUDr, asistent kliniky

Electrophoretic studies on serum, proteins in scleroderma in the course of the disease and during the treatment. Cesk. dermat. 24 no.6:347-353 Dec 54.

1. Z II dermatologicke kliniky v Praze (prednosta prof. MUDr K.Hubschmann)

(SCLERODERMA, blood in
proteins, electrophoresis)

(ELECTROPHORESIS
blood proteins in scleroderma)

(BLOOD PROTEINS, in various diseases
scleroderma, electrophoresis)

57414, 2

✓ Electrophoretic studies of serum proteins in scleroderma in the course of the disease and during the treatment. K. Hübschmann and Z. Štáva. *Českoslov. Dermatol.* 29, 347-53(1954); *Excerpta Med.* 9, Sect. XIII, 320-1(1955).— The results of 93 electrophoretic analyses of serum proteins in 24 cases of diffuse scleroderma (I) and acrosclerosis (II) and 12 cases of circumscribed scleroderma (III) are presented, with special attention to the changes during treatment. In I and II which show little change the electrophoretic patterns are relatively stable, but in cases where the disease progresses γ -globulin levels increase. In III the electrophoretic patterns show fewer deviations. In acute and widespread cases the patients' age has little influence. After large doses of cardiazol (metrazol), electrophoretic patterns change in about 50% of I and II cases. Procaine has less effect than cardiazol both in regard to clinical signs and electrophoretic patterns. K. I. C.

Med. 2/

STAVA, ZDENEK

HUBSCHMANN, Karel prof. dr.; STAVA, Zdenek, as. dr.

Blood vessel pathogenesis of diffuse scleroderma. Cesk. dermat. 29
no.1:26-31 Feb 55.

1. Z II dermatol. klin. v Praze; predm. prof. dr. K. Hubschmann.
(SCLERODERMA
diffuse, role of circ. system disord. in pathogen.)
(BLOOD CIRCULATION, diseases
disord. role in pathogen. of diffuse scleroderma)

TRAPL, Jiri, MUDr; STAVA, Zdenek MUDr - asistenti kliniky

Contribution to the problem of cutaneous arteriolitis. Cesk. dermat.
29 no.1:50-53 Feb 55.

1. Z II. dermatol. kliniky v Praze (predn. prof. dr. K. Hubschmann)
(ARTERITIS
arteriolitis cutaneous allergic, diag. & ther.)
(ALLERGY, manifestations
arteriolitis, cutaneous)

STAVA, Zdenek

HUBSCHMANN, Karel, professor, MUDr; STAVA, Zdenek, MUDr, asistent kliniky

Current status of the problem of scleroderma. Cesk.derm. 29 no.2:
96-102 Apr 55.

1. Z II. dermatologicke kliniky v Praze (prednosta prof. MUDr K.
Hubschmann).

(SCLERODERMA,
classif. & ther., current status)

STAVA, Zdenek, MUDr; asistent kliniky; CERMAKOVA, Ruzena, MUDr, klin.
sekundar.

Present concepts on etiology, pathogenesis, and therapy of acne
vulgaris; review with practical considerations. Cesk.derm. 30
no.4:246-255 Aug '55.

1. Z II. dermatologicke kliniky v Praze (prednosta prof.MUDr
Karel Hubschmann)
(ACNE,
review)

STAVA, Zdenek, MUDr.; JIRASEK, Lybor, MUDr., asistenti kliniky

ACTH and cortisone in dermatological practice. Cesk. dermat.
30 no.6:346-352 Dec 55.

1. Z II. dermatologicke kliniky v Praze (prednosta prof. dr.
K. Hubschmann).

(ACTH, therapeutic use,
skin dis.)

(CORTISONE, therapeutic use,
skin dis.)

(SKIN, diseases,
ther., ACTH & cortisone)

JIRASEK, Lubor, MUDr; STAVA, Zdenek, MUDr, klin assistenti

Occupational dermatosis caused by coal tar. Prakt. lek., Praha
35 no.2:34-37 20 Jan 55.

1. Z II dermatol. klin. v Praze, prednosta prof. MUDr
K.Hubschmann

(OCCUPATIONAL DISEASES

skin dis. caused by coal tar)

(SKIN, diseases

occup., caused by coal tar)

(COAL TAR, injurious effects

skin dis., occup.)

RABOCH, Jan, MUDr; STAVA, Zdenek, MUDr

Sexual disorder after implantation of high dose of follicular hormone in a young man. Cas.lek.cesk. 94 no.19:497-500 6 May 55.

1. Ze Sexuologického ustavu Karlovy university v Praze; prednosta: prof. dr. Jos. Hynie, z II. dermatovenereologické kliniky v Praze; prednosta: prof. dr. K. Hubschmann.

(ESTROGENS, injurious effects,

sexual disord. caused by high dose implant in young man)

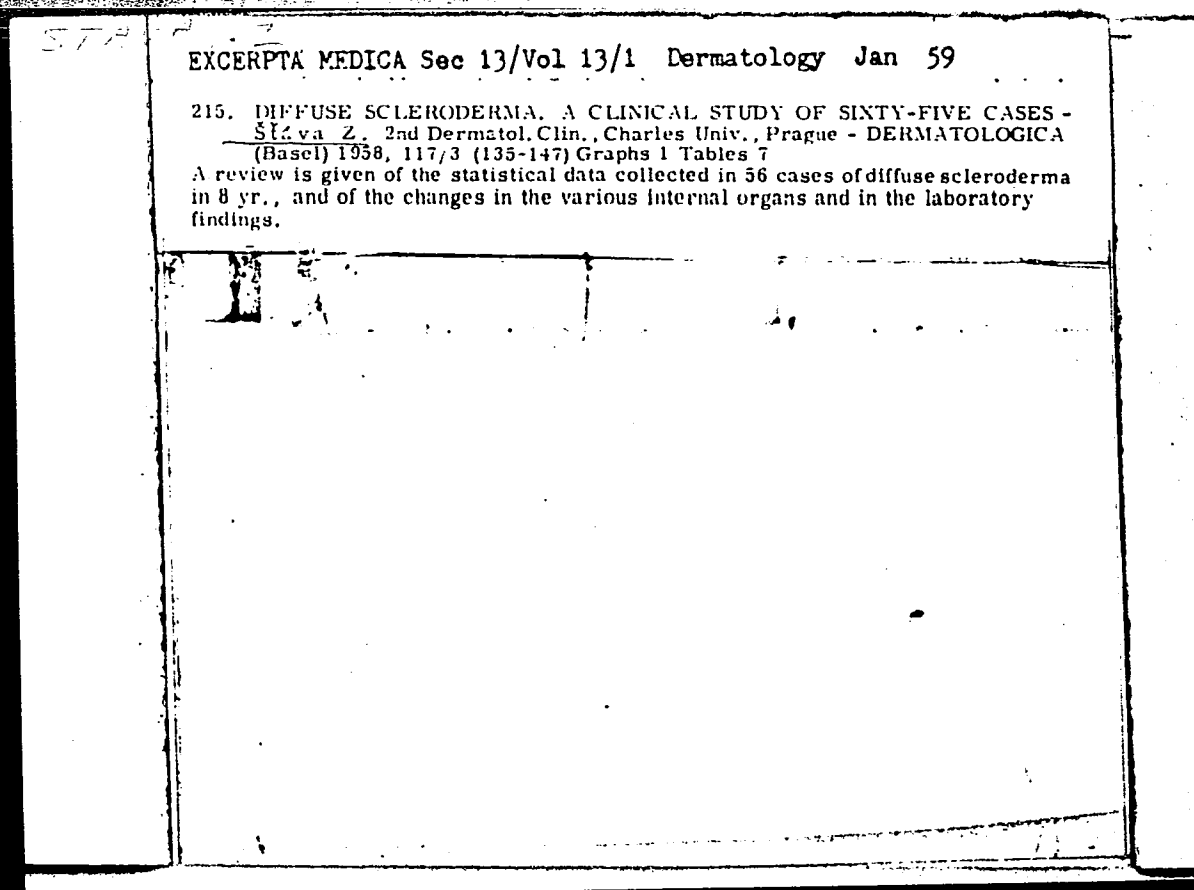
(SEXUAL BEHAVIOR, effect of drugs on,

estrogens high dose implant in young man)

STAVA, Zdenek, MUDr, as klin.; CERMAKOVA, Ruzena, MUDr, klin. sek

Removal of freckles with phenol-ether solution. Cesk.derm. 31 no.4:
223-225 Aug 56

1. Z II. dermatol. kliniky KU v Praze, predn. prof. Dr. K.Hubshman
 - (LENTIGO, ther.
removal with phenol-ether solution (Cz))
 - (PHENOLS, ther. use
phenol-ether solution in removal of lentigines (Cz))
 - (ETHER, ther. use
ether-phenol solution in removal of lentigines (Cz))



EXCERPTA MEDICA Sec 2 Vol 12/11 Physiology Nov 59

5191. SERUM PROTEINS IN SCLERODERMA - Štáva Z. II. Dermatol. Clin., Charles Univ., Prague - DERMATOLOGICA (Basel) 1958, 117/3 (147-153) Graphs 1 Tables 2

Electrophoretic study of serum proteins in 46 patients with diffuse scleroderma and in 26 patients with circumscribed scleroderma (total of 148 electrophoretic analyses, of which arithmetical means were calculated) showed a rise of the γ -globulin fraction at the expense of the albumen, which parallels the progression of the disease regarding skin surface (circumscribed scleroderma) as well as systemic involvement (progressive acrosclerosis). The increase of γ -globulin concentration is more pronounced in slowly progressing acrosclerosis of large extent and long duration than in generalized diffuse scleroderma rapidly advancing to a fatal outcome. Generalization of typical circumscribed scleroderma over the whole body in 2 cases, in which the systemic involvement could not be clinically proved, or at least was doubtful, was also followed by a pronounced rise of the γ -globulin level. It seems that the increase of the γ -globulin fraction parallels not only the systemic sclerosis of the organism but even the extent of sclerodermatous changes in the skin itself. The increase of the γ -globulin fraction can hardly be regarded a proof of immunobiological mechanisms in the pathogenesis of the condition or a common denominator for including scleroderma among the diffuse collagen diseases. The serum protein pattern appears very constant at a certain stage of development of scleroderma. Attempts to alter it by various therapeutic measures or drugs, including ACTH/cortisone, have failed. (XIII, 2)

EXCERPTA MEDICA Sec 13 Vol 13/11 Dermatology Nov 59
Hannover - Groningen

3079. THE PROBLEM OF INTERRELATION BETWEEN DIFFUSE GENERALIZED SCLERODERMA, ACROSCLEROSIS, RAYNAUD'S PHENOMENON AND RAYNAUD'S DISEASE. A CLINICAL STUDY BASED ON AN ANALYSIS OF 70 CASES - Stáva Z. Second Dermatol. Clin., Charles Univ., Prague - DERMATOLOGICA (Basel) 1959, 118/1 (-11) Tables 1

The personal follow-up over a period of 10 yr. and the final analysis of 70 cases of diffuse scleroderma lead to the following conclusions: Raynaud's phenomenon precedes scleroderma of the acrosclerotic type (Hutchinson, Sellei, O'Leary) by varying periods. During the entire time all the criteria of Raynaud's disease existed. There is a very close relation between Raynaud's disease and scleroderma of the acrosclerotic type to the point of possibly being the same disease with different degrees of involvement. In acute malignant diffuse generalized scleroderma Raynaud's phenomenon is either not marked or altogether absent. The prognosis of acrosclerosis is the less favourable, the earlier in life Raynaud's phenomenon occurs and the shorter the interval between its onset and the appearance of sclerodermatous changes. Joint pains at the onset of the disease further aggravate the prognosis.

STAVA, Zdenek; BIELICKY, Tibor

Report from a trip to dermatological clinics in Rostock and Berlin.
Cesk. dermat. 35 no.2:131-136 Ap '60.

1. II dermatologická klinika v Praze, prednosta prof. dr. Karel
Hubschmann.

(DERMATOLOGY hosp & clin)

KALENSKY, J.; STAVA, Zd.; TRAPL, J.

Carcinoma teleangiectaticum. Case report. Sborn.lek.62 no.11:
321-323 N°60.

1. II. dermatologická klinika fakulty všeobecného lékařství
University Karlovy v Praze, přednosta prof.dr. K.Hubschmann.
(CARCINOMA case reports)
(BREAST NEOPLASMS case reports)

STAVI, Z.

SOURCE (in copy); Given Name:

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation:

Sources: Prague, Rozhledy v Tuberkulose a v Nemocich Plicnich,
Vol XXI, No. 7, August 1961, pp 533-539

Data: "Pulmonary Findings in Collagenoses."

Authors:

MACHOLDA, F, Tuberculosis Clinic of the Faculty of General Medicine
of Charles University (Klinika tuberkulozy fakulty vseobecneho
lekarstvi Karlovy university), Prague; Chief (Prednosta): Prof
Dr Jaroslav Jedlicka

STAVI, Z, Dermatological Clinic II of the Faculty of General Medicine
of Charles University (II dermatologicka klinika vseobecneho
lekarstvi Karlovy university), Prague; Chief (Prednosta): Doc
Dr Jan Obrtel

KVICALOVA, Eva; STAVA, Zdenek; TRAPL, Jiri

Steroid therapy of pemphigus associated with diabetes mellitus. Cesk.
derm. 36 no.6:424-426 '61.

1. II kozni klinika fakulty vseobecneho lekarstvi Karlovy university v
Praze, prednosta doc. MUDr. Jan Obrtel, Dr. Sc.

(PEMPHIGUS ther) (DIABETES MELLITUS compl)
(PREDNISONE ther) (CORTICOTROPIN ther)

STAVA, Zdenek; KVICALOVA, Eva; KACL, Jaromir

Circumscribed scleroderma and spinal changes. Preliminary communication on 40 cases. Cesk. dermat. 36 no.7:465-468 '61.

1. II dermatologicka klinika FVL KU v Praze, prednosta doc. MUDr. Jan Obrtel, Dr. Sc. Radiologicka klinika FVL KU v Praze, prednosta prof. MUDr. Vaclav Svab.

(SCLERODERMA compl) (SPINE dis)

STEIN, J.; STAVA, Zd.

The electroencephalogram in scleroderma. Cesk. dermat. 36 no.8:
501-512 D '61.

1. Laborator pro patofyziologii nervoveho systemu v Praze, prednosta
akademik K.Henner II. dermatologicka klinika KU v Praze, prednosta
doc. dr. J. Obrtel.

(ELECTROENCEPHALOGRAPHY physiol.)
(SCLERODERMA physiol.)

KVICALOVA, Eva; STAVA, Zdenek

Dermatitis bullosa phytogenes after contact with *Heracleum Mantegazzianum*. *Cesk. dermat.* 37 no.1:31-34 F '62.

1. II kozni klin. fak. vseob. lek. Karlovy univ. v Praze, predn. MUDr. J. Obrtel, DrSc.

(DERMATITIS VENENATA etiol) (TRIAMCINOLONE ther)
(PLANTS toxicol)

STAVA, Z.; KVICALOVA, E.; JENIKOVA, J.

"Petechial" angiomata. Cesk. dermat. 38 no.2:134-135 Ap '63.

1. II dermato-venerologicka klinika fak. vseob. lek. KU v
Praze, prednosta prof. dr. J. Obrtel, DrSc. Dermato neverolo-
gicke oddeleni OUNZ v Nymburce.
(HEMANGIOMA) (SKIN NEOPLASMS) (PURPURA)

KVICALOVA, E.; STAVA, Z.

Therapy of atopic eczema with Bucky rays (Report on 95 patients treated during the past 10 years). Cesk. dermat. 38 no.3:174-177
Je '63.

1. II dermato-venerologicka klinika fakulty vseobecneho
lekarstvi KU v Praze, prednosta prof. dr. J. Ortal, DrSc.
(RADIOTHERAPY) (DERMATITIS, ATOPIC)

STAVA, Z.

Basic laboratory and general examinations in dermatology.
Cesk. dermat. 38 no.4:243-250 Ag '63.

1. II dermato-venerologicka klinika fakulty vseobecneho
lekurstvi KU v Praze, prednosta prof. dr. J. Obrtel, DrSc.
(DERMATOLOGY) (DIAGNOSIS, LABORATORY)

STAVA, Z.; KVICALOVA, E.

Current trends in dermatological roentgen therapy. Cesk. dermat.
38 no.2:122-133 Ap '63.

1. II dermato-venerologicka klinika fakulty vseobecneho lekarstvi
KU v Praze, prednosta prof. dr. J. Obrtel, DrSc.
(DERMATOLOGY) (RADIOTHERAPY)

KOLAR, J.; WEISINGER, F.; STAVA, Z.

The esophagus in dermosclerosis. Cesk. radiol. 18 no.6:387-396 H '64.

I. Radiologicka klinika (prednosta prof. dr. V. Svab, DrSc.)
a II. kozni klinika (prednosta prof. dr. J. Obrtel, DrSc.)
Fakulty vseobecneho lekarstvi Karlovy University v Praze.

STAVAR, Traian

The 1962 Statistical Yearbook of Rumania. Probleme econ 16 no.1:
124-127 Ja '63.

OLSAK, Milan; STAVAR, Rudolf

Pressing instead of machining maleable cast-iron castings.
Stroj vyr 12 no.10:751-753 0 '64.

1. Branecke zelezarny National Enterprise, Branka near Opava.

J. H. P. J. H. P.

Prirucka myslivackeho prava. Praha, Statni zemedelske nakl., 1956.
103 p. (Manual of game laws. bibl.)
DS, Not in DLC

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

STAVELIK Z.

MACURA, J.; STAVELIK, Z.

Glucose metabolism in Azotobacter. Chekh.biol. 2 no.3:159-167 Je '53.
(MLRA 7:4)

1. Institut biologii Chekhoslovatskoy Akademii nauk, mikrobiologiya,
Praga.
(Azotobacter) (Glucose)

STAYER, T.

Special workers for the industry of the East. Prof.-tekhn.
obr. 13 no.7:10-11 J1 '56. (MLRA 9:10)

1. Nachal'nik Molotovskogo obladnogo upravleniya trudovykh
rezervov.

(Technical education)

STAYER, T.

Requirements of our times. Prof.-tekh. obr. 17 no.10:16-17 O '60.
(MIRA 13:10)

1. Nachal'nik Permskogo oblastnogo upravleniya professional'no-tekhnicheskogo obrazovaniya.
(Perm Province--Technical education)

STAVER, T.; MUKHANOV, I.

All-round and systematic help. Prof.-tekh. obr. 18 no. 3:25-26 Mr '61.
(MIRA 14:4)

1. Nachal'nik Permskogo oblstnogo upravleniya professional'no-tekhni-
cheskogo obrazovaniya (for Staver). 2. Nachal'nik upravleniya
kadrov i uchebnykh zavedeniy Permskogo sovnarkhoza (for Mukhanov).
(Perm Province--Evening and continuation schools)

STAVER, O.I. Inzh.; CHOP, Yu.I.

have obtained an increase in the output of kiln units. TSement
31 no.5:13-15 S-O '65. (MIRA 18:10)

1. Krichevskiy tsementno-shifernyy kombinat.

LITSOYEV, N.D., starshiy inzhener; STAVER, V.P., starshiy elektromekhanik ✓

Additional device for the service channel of the RM-24A radio
relay apparatus. Avtom., telem. i svyaz' 4 no. 12:25-26 D '60.
(MIRA 14:1)

1. Debal'tsevsckaya distantziya signalizatsii i svyazi Donetskoy
dorogi.
(Railroads--Communication systems)

STAYER, V.F., inzh.; LITSOYEV, N.D., starshiy inzh.

Changes in the circuit for the automatic switching-in of
auxiliary power supply to radio relay apparatus. Avtom.,
telem. i svyaz' 5 no.10:37-38 0 '61. (MIRA 14:9)

1. Debal'tsevskaia distanttsiya signalizatsii i svyazi Donetskoy
dorogi (for Stayer).

(~~Railroads~~—Electronic equipment)
(Electric power supply to apparatus)

STAVERSKIY; MALYUTIN, G.I.; BELGORODSKIY, P.N.

Experience in the receiving, storage, and processing of sugar
beets harvested with the continuous method. Sakh.prom. 37 no.7:
42-49 JI '63. (MIRA 16:7)

1. Gonorovskiy sakharney zavod (for Staverskiy).
2. Gul' kevicheskoy
sakharney zavod (for Malyutin).
3. Novo-Kubanskiy sakharney zavod
(for Belgorodskiy).

(Sugar beets)

STAVIK, Jaroslav, inz.

One-side impregnation of corrugated pasteboard. Papir a
celulosa 17 no.2:39-41 F '62.

1. Jihoceske papirny, Vetrni.

STAVIK, Jaroslav, inz.

Paper making from sodium bisulfite high-yield pulp. Papir a
celulosa 18 no.1:3-4 Ja '63.

1. Jihoceske papirny, Vetrni.

STAVIK, Jaroslav, inz.; HAYDEN, Milan

Some experiences in one year's operation of a reconstructed
paper machine. Papir a celuloza 18 no.7:149-151 J1 '63.

1. Jihoceske papirny, Vetrni.

STAVIK, Jaroslav, inz.; HAYDEN, Milan

Operational experience with the conventional Spooner
drying hood. Papir a celuloza 19 no. 3:74-78 Mr '64.

1. Jihoceske pairny, Vetrni.

STAVIK, Jaroslav, inz.; HAYDEN, Milan

Production of raw abrasive paper. Papir a celuloza 19 no.10:
276-278 O '64.

1. Jihoceske papirny, Vetrni.

STAVIKOVA, M.

25

[illegible]

(13) (14)

NESTEROV, I.I.; PEROZIO, G.M.; BRADUCHAN, Yu.V.; STAVITSKIY, B.P.; NESTEROVA,
Ye.I.; MITROFANOVA, G.M., vedushchiy red.

[Surgut keywell. Tymen' Province.] Surgutskaya opornaya skvazhina
(Tiumenskaya oblast'). Leningrad Nedra, 1964. 187 p. (Leningrad.
Vsesoyuznyi neftyanoi nauchno-issledovatel'skii geologorazvedochnyi
institut. Trudy, no.226)

OVCHINNIKOV, V.; STAVINSKIY, Ch., starshiy inzh.-mekhanik

Machinist training of a machine operator. Prof.-tekh. obr.
18 no.5:20 My '61. (MIRA 14:8)

1. Nachal'nik Zhitomirskogo oblastnogo upravleniya professional'no-
tekhnicheskogo obrazovaniya (for Ovchinnikov).
(Zhitomir Province--Farm mechanization--Study and teaching)

PETROV, A., преподаvatel'; STAVINSKIY, Ch.; KOMEL'KOV, A.; KULINSKIY, V.

Editor's mail. Prof.-tekhn.obr. 19 no.10:27 0 '62.

(MIRA 15:11)

1. Uchilishche mekhanizatsii sel'skogo khozyaystva No.1 Tyumenskaya oblast' (for Petrof).
2. Starshiy inzhener-mekhanik Zhitomirskogo oblastnogo upravleniya (for Stavinskiy).
3. Zamestitel' direktora po uchebno-proizvodstvennoy rabote gorodskogo professional'no-tekhnicheskogo uchilishcha No.27, Brest (for Komel'kov).
4. Ispolnyayushchiy obyazannosti direktora gorodskogo uchilishcha mekhanizatsii sel'skogo khozyaystva No.9 Khmel'nitskoy oblasti (for Kulinskiy).

(Vocational education)

STAVIN'SKIY, K.
YANKOVYA, A. [Iankowiak, A.]; STAVIN'SKIY, K. [Stawinski, K.]

Dental caries in Poznan Province. Gig. i san. 23 no. 2:93 F '58.
(MIRA 11:4)

(POZNAN PROVINCE--~~TEETH~~--DISEASES)

STAVINSKIY, V.

USSR/ Electricity - Motors

Card 1/1 Pub. 89 - 29/30

Authors : Stavinskiy, V.

Title : The DAG-1 electric motors and their application

Periodical : Radio 6, 59 - 62, Jun 1955

Abstract : The characteristics of Soviet manufactured low-capacity electric asynchron
motors of the DAG-1 series used mainly in electric record players (phono-
graphs) are described. The motor with 1400 to 1460 rpm operates on AC cur-
rent of 127 and 220 v. Drawings.

Institution :

Submitted :

UZHAKOV, B., STAVINSKIY, V., STAMENOV, K., STOYCHEV, T.

Use of conductances in shaping pulses from FED-63 and FED-36
photomultipliers. Prib. i tekhn. eksp. 9 no.4:186-188 J1-Ag '64.
(MCRA 17312)

1. Sofiyskiy universitet, Bolgariya.

STAVINSKIY, V.A., inzhener.

B.L.Rozing, founder of the electronic television (1869-1933).
Izobr.v SSSR 2 no.7:46-47 J1 '57. (MLRA 10:7)
(Rozing, Boris Lvovich, 1869-1933) (Television--History)

STAVINSKIY, V.A., inzh.

Glory to the radio inventor. Izobr. i rats. 3 no.5:3-4 My '58.
(MIRA 11:9)

(Popov, Aleksandr Stepanovich, 1859-1905)

VOVENKO, A.S.; KULAKOV, B.A.; LIKHACHEV, M.F.; MATULENKO, Yu.A.; SAVIN, I.A.;
STAVINSKIY, V.S.

Cherenkov gas counters. Usp. fiz. nauk 81 no.3:453-506 N '63.
(MIRA 16:12)

L 8513-65 ESD(c)/RAEM(t)

ACCESSION NR: AP4044695

S/0120/64/000/004/0186/0188

AUTHOR: Dzhakov, E.; ~~Stavinskiy, V.~~; Stamenov, K.; Stoychev, T. B

TITLE: Shaping pulses of FEU-33 and FEU-36 multiplier phototubes by an inductance

SOURCE: Priborny* i tekhnika eksperimenta, no. 4, 1964, 186-188

TOPIC TAGS: coincidence circuit, pulse shaping, multiplier phototube / FEU-33 multiplier phototube, FEU-36 multiplier phototube

ABSTRACT: Suggested by De Benedetti, et al. (Rev. Scient. Instrum., 1952, 23, 38), pulse shaping by means of an inductance was used in a high-speed coincidence circuit. A NaI scintillator irradiated by Co ⁶⁰ was used as a source. The inductance-shaped multiplier-phototube pulses were divided into two channels and applied to a fast double-coincidence circuit, via one channel directly and with a delay via another channel. The width of the shaped pulses was determined

Card 1/2

L 8513-65

ACCESSION NR: AP4044695

indirectly by means of the half-width of the delayed self-coincidence curve. With an optimum inductance value of 0.1-0.2 microh, the pulse width was 1.5-2 times smaller than in the case when the pulses (in the same outfit) were shaped by a cable. Orig. art. has: 3 figures.

ASSOCIATION: Sofiyskiy universitet (Sofia University), Bulgaria

SUBMITTED: 28Dec62

ENCL: 00

SUB CODE: NP, EC

NO REF SOV: 004

OTHER: 002

Card 2/2

LEBFDINSKIY, Yu.N., inzh.; STAVIN, V.N., inzh.

Electroplating in flow-type electrolytes. Mashinostroenie no.4:73-77
J1-Ag '65. (MIRA 18:8)

STAVINSKIY, V. S.

10
RAW

4099 AEC-tr-2435((Pt. 1) (p.217-26))
NEUTRON YIELD IN THE PHOTODISINTEGRATION OF
URANIUM AND THORIUM. L. E. Lazareva, B. I. Gavrillov,
B. N. Valuev, G. N. Zaitseva, and V. S. Stavinsky
[Stavinskiy], p.217-26 of CONFERENCE OF THE ACADEMY
OF SCIENCES OF THE USSR ON THE PEACEFUL USES
OF ATOMIC ENERGY, JULY 1-5, 1955. SESSION OF THE
DIVISION OF PHYSICAL AND MATHEMATICAL SCIENCES
(Translation). 10p.

This paper was originally abstracted from the Russian
and appeared in Nuclear Science Abstracts as NSA 9-7933.

MW Sec

RMZ

STAVINSKIY, V. S.

Yield of neutrons in the photodisintegration of uranium and thorium. L. E. Lazareva, B. I. Gavrilov, B. N. Valuev, G. N. Zatsepina, and V. S. Stavinskiy. *Conf. Acad. Sci. U.S.S.R. on Peaceful Uses of Atomic Energy, Session Div. Phys. Math. Sci.* 1955, 217-25 (Pub. 1956) (Engl. translation).—See *C.A.* 50, 3113a.

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STAVINSKIY, V. S.

The yield of neutrons in the photodisintegration of uranium and thorium. L. E. Lazareva, B. I. Gavrilov, B. N. Valnev, G. N. Zatepina, and V. S. Stavinskiy. *Sessiya Akad. Nauk S.S.S.R. po Mirnoyu Ispol'zovaniyu Atomnoi Energii, Zasedaniya Otdel. Fiz.-Mat. Nauk*, 1955, 306-20 (English summary, 320-1).—The photodisintegration of U^{238} and Th^{232} was investigated with photons from a 30-m.e.v. synchrotron. For bremsstrahlung photons with E_{max} from 6 to 28 m.e.v., the yield of photon neutrons and the av. ratio $r(E_{max})$ of neutron to fission yield were measured. For $E_{max} = 18.5$ m.e.v., the yields of delayed neutrons accompanying the photodisintegration of U^{238} and Th^{232} were measured also. The photon neutrons passed through a paraffin moderator and were registered in a BF₃ ionization chamber. The yield of fission fragments was measured by aid of a differential parallel-plate ionization chamber. The flux of bremsstrahlung photons, impinging on the sample, was detd. by measuring the ionization inside an Al chamber with 7.5 cm. thick walls. From the obtained curves, by aid of the photon difference method, one could now calc. the photon neutron cross section curves (σ_n) and the photofission cross-section curves (σ_f) for U^{238} and Th^{232} ; the integrated cross sections for U^{238} were thus found to be 12.9 and 1.7, and for Th^{232} 6.6 and 0.64 m.e.v.-barn, resp. Analysis of the σ_n and σ_f curves makes it possible to est. the probability for U^{238} and Th^{232} fission at various energies of the γ -ray excitation. This probability is fairly const. for U^{238} with 0.2-0.3, but for Th^{232} it is about 0.1 at 8-11 m.e.v., and increases to 0.3-0.4 at higher m.e.v. For an av. excitation energy of 12 m.e.v. the yield of delayed neutrons (as % of the total neutron yield) is 0.41 ± 0.02 for U^{238} and 0.18 ± 0.01 for Th^{232} .
Werner Jacobson

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STAVINSKIY, V.S.

MATULENKO, Yu.A.; SAVIN, I.A.; STAVINSKIY, V.S.

Using the method of Vavilov-Cherenkov radiation interference for
measuring the speed of particles. Prib. i tekhn. eksp. no. 3:44-45
M-D '56. (MLRA 10:2)

1. Elektrofizicheskaya laboratoriya AN SSSR.
(Interferometry) (Particles, Elementary--Measurement)

(Acad. Sc. USSR)

paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57.

21(7)
AUTHORS: Kovalev, V. P., Stavinskiy, V. S. SOV/89-5-b-11/25
TITLE: The Systematology of the Spectra of Prompt Neutrons of Fission
(Sistematika spektrov mgnovennykh neytronov deleniya)
PERIODICAL: Atomnaya energiya, 1958, Vol 5, Nr 6, pp 649 - 652 (USSR)
ABSTRACT: Experimental investigations (Refs 1, 2, 3) showed that the
spectra of fission neutrons of U^{233} , Pu^{239} , and Cf^{252} are
harder than the fission spectrum of U^{235} . Furthermore, an
increase of the hardness of U^{233} to Cf^{252} can be observed.
On the basis of the evaporation model the attempt is made to
verify experimental data theoretically.
An analysis of the spectrum of fission neutrons shows that
it is possible, by means of the evaporation model (evapora-
tion of neutrons from the moving fission fragments), to
explain both the shape of the spectrum and the difference in
hardness. With respect to their thermodynamic properties,
the fission fragments are equivalent to a normal nucleus.
Analysis makes it possible to draw the following conclusions:
Card 1/2 1) The hardness of the spectrum of fission neutrons increases

The Systematology of the Spectra of Prompt
Neutrons of Fission

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monotonously with the increase of the parameter Z^2/A of the fissioning nucleus, i.e. the increase of the excitation energy of the fissioning nucleus with increasing Z^2/A manifests itself not only by an increase of $\bar{\nu}$ values, but also by an increase of the hardness of the spectrum of fission neutrons. The variation of the hardness-parameter B in dependence on excitation energy amounts to about 1 - 2 % per 1 MeV.

2) In order to be able to describe neutron- and γ -emission from the fission fragments simultaneously, it is necessary to know the distribution of the excitation energy of each fission fragment.

The results obtained were discussed with A. I. Leypunskiy, I. I. Bondarenko, and L. N. Usachev; V. P. Kharin assisted in carrying out numerical computations. There are 2 figures, 1 table, and 20 references, 7 of which are Soviet.

SUBMITTED: July 18, 1958
Card 2/2

AUTHORS:

Agranovich, V. M., Stavinskiy, V. S.

SOV/ 56-34.3-25/55

TITLE:

On the Theory of Photonuclear Reactions (K teorii fotoyadernykh reaktsiy)

PERIODICAL:

Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958,
Vol. 34, Nr 3, pp. 700-706 (USSR)

ABSTRACT:

The present work computes the cross section of the capturing of γ -quanta by the nuclear material within that range of energy which corresponds to great resonance. First the operator of the interaction of the electromagnetic field with the system of nucleons is put down. For reasons of simplicity the author investigates a system of A nucleons being in a sufficiently great volume V . Within the frame of the model of the self-consistent field the ground state of such a system corresponds to a completely filled Fermi surface with the maximum wave number k_F . A formula is deduced for the absorption probability of the γ -quantum per second. In the deduction of the matrix element occurring in it the interaction of the electromagnetic field with the magnetic moments of

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On the Theory of Photonuclear Reactions

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the nucleons is neglected. This matrix element can be different from zero only at certain values. The course of computation is pursued step by step. A function contained in the expression for the initially mentioned cross section is put down explicitly. These functions are shown in a diagram for various values of the parameters used. In all cases the capture cross section of the γ -quantum has a clearly marked resonance. Here $M/2 < M^* < M$ holds, where M denotes the mass of free nucleons, and M^* the effective mass. The curves $F(x)$ were computed for the two limit values of the effective mass. With an increase of the effective mass from $M^*=M$ to $M^*=M/2$ the values of the cross section decreased by 50% at the maximum, the half with increasing by 20-30%. The position of the resonance of the photocapture and the width of this resonance depend only little on M^* . The computation carried out here can only difficultly be compared with experiment in a quantitative respect due to the lacking of ample measuring results. In qualitative respect the existing measuring results for medium and heavy nuclei (only for such nuclei the comparison of the theory with the experiment is legiti-

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mate) do not contradict the consequences of the computation carried out here. The reasons for the existing differences are nevertheless shown. The model of an infinite nuclear material used here can not lead to the observed dependence of the capture cross section of the γ -quantum on A . The reasons for this are briefly given. The taking into account of finite dimensions of the nucleus leads to a better agreement between theory and experiment. There are 2 figures and 19 references, 4 of which are Soviet.

SUBMITTED: September 30, 1957

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21(7)

AUTHORS:

Kovalev, V.P., Stavinskiy, V.S.

SOV/56-35-3-37/61

TITLE:

On the Problem of the Calculation of the Spectra of Fission Neutrons (K voprosu o raschete spektrov neytronov deleniya)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 3, pp 787 - 789 (USSR)

ABSTRACT:

The present paper calculates the spectra of fission neutrons in consideration of the energy dependence of the cross section of the capture of neutrons by excited nuclei. For the estimation of the energy dependence of $\sigma(E, E_0)$ the model of a complex potential was used, which gives a satisfactory description of the total cross section and the cross section of the capture of low-energy neutrons by atoms. For the purpose of estimating $\sigma(E, E_0)$ the model of the black nucleus can be used (Ref 6). When calculating $\sigma(E, E_0)$ it is necessary to take also the steady variation of the potential at the boundary into account. This is possible by means of the approximated expression $\sigma(E) = \sigma_0(E) T_d(E) / T_0(E)$. Here $\sigma(E)$ denotes the cross section to

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of Fission Neutrons

be calculated, $\sigma_o(\epsilon)$ the cross section of the capture of neutrons by a "black" nucleus with a sharp variation of the potential at the boundary, $T_o(\epsilon)$ the penetrability of the neutron wave for this potential, $T_d(\epsilon)$ the coefficient of penetrability for a here given and constantly varying potential. A table contains the values of the ratio $T_d(\epsilon)/T_o(\epsilon)$ and the quantity

$\sigma(\epsilon)\epsilon^{1/2}$ which characterizes the deviation of the cross section $\sigma(\epsilon)$ from $1/\sqrt{\epsilon}$. The obtained energy dependence of the cross section of the inverse process, by the way, is up to an energy of ~ 1 MeV similar to the function $1/\sqrt{\epsilon}$. Basing upon the conditions mentioned, the spectra of the fission neutrons U^{235} and Cf^{252} were calculated. For U^{235} the results of these calculations agree well with experimental results (Refs 8,11). The authors thank A.I. Leypunskiy for the interest he displayed in this work and for discussing results. They further express their gratitude to

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of Fission Neutrons

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I.I. Bondarenko and L.N. Usachev for their critical remarks,
and V.P. Kharin for carrying out numerical computations.
There are 1 table and 12 references, 5 of which are Soviet.

SUBMITTED: May 10, 1958

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SOV/56-35-5-36/56

24(5)

AUTHORS:

Agranovich, V. M., Stavinskiy, V. S.

TITLE:

The Theory of the "Second Moment" in the Model of the Atomic Nucleus of Lane, Thomas, and Wigner (K teorii "vtorogo momenta" v modeli atomnogo yadra Layna, Tomasa i Vignera)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 5, pp 1285-1287 (USSR)

ABSTRACT:

The conception of a "second moment" was introduced in a paper by the above-mentioned authors (Ref 1) for the qualitative characterization of the error which is permitted when substituting the hamiltonian of the shell model for the hamiltonian of the nucleus. It holds that $H = H_0 + H_1$. Here H denotes the hamiltonian of the nucleus, H_0 - the hamiltonian of the nucleus in the shell model, H_1 - an operator establishing the correlation of the states of individual nucleons in the shell model. The nuclear wavefunction can be represented as a development

$$(\psi_E, H_0 \psi_E) = \sum_b |c_b(E)|^2 E_b$$

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Lane, Thomas, and Wigner

according to a complete system of orthogonal functions. In the case of the validity of a condition given by the authors it is easy to determine the "second moment" of the nuclear model, which, according to the definition given, is

$$W^2(E) = \sum_b (E_b - E)^2 |c_b(E)|^2. \text{ Here } E \text{ denotes the nuclear energy}$$

and the aforementioned condition is $|c_b(E)|^2 \sim \exp(-E_b/kT)$.

The authors next derive formulae for the dependence of the "second moment" on the excitation energy E and on the number A of nucleons in the nucleus. There are 10 references, 5 of which are Soviet.

SUBMITTED: June 23, 1958

Card 2/2

STAVINSKIY, V. S.: Master Phys-Math Sci (diss) -- "Some problems in the statistical theory of the nucleus". Moscow, 1959. 11 pp (Min Higher Educ USSR, Moscow Engineering-Phys Inst), 100 copies (KL, No 17, 1959, 105)

SOV/56-36-2-50/63

21(8)

AUTHOR:

Stavinskiy, V. S.

TITLE:

On the Problem of the Emission Mechanism of Momentaneous Neutrons of Fission (K voprosu o mekhanizme ispuskaniya mgnovennykh neytronov deleniya)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 2, pp 629-630 (USSR)

ABSTRACT:

Some special features of the spectra of momentaneous fission neutrons can be explained by the following assumption: The surface energy contained in the sharp-pointed parts (which are formed in the instant of explosion of the "neck") is converted into the energy of a shock wave which propagates in the direction of fissionfragment motion. Such a shock wave can cause the emission of nearly monoenergetic neutrons (in the same direction in which the fragment moves). For estimation, the shape of the deformed fragments in the instant of the neck rupture must be known. Hitherto, no definite experimental data concerning this shape have been available and, therefore, the calculation results obtained by L. D. Hill (Khill) are used. According to these calculations, any fragment in the instant immediately

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after the fission has a sharp pointed part, the linear dimensions of which are by 1.5 - 2 times greater than the fragment diameter. A deformation energy of the order of magnitude of 20 - 30 Mev is included in any sharp pointed part. If the number of the particles in the sharp point is known, the rate of stretching of such a sharp point can easily be estimated; it amounts to $\sim 0.1 c$ where c denotes the velocity of light. According to these estimates, the conditions for the formation and propagation of a shock wave in the fragment are evidently satisfied. In order to estimate the damping of the shock waves, a detailed investigation of the spreading of the shock wave after its emission from the sharp pointed part is necessary. This damping is evidently sufficiently intense and the energy of the shock wave is therefore on the average sufficient only for the ejection of one neutron of very low energy. If the suggested mechanism for the emission of the fission neutrons actually occurs, more accurate measurements of the angular distributions and of the spectra of fission neutrons will supply more information concerning the deformation of the fragments in the instant immediately preceding the fission. The

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author thanks A. I. Leypunskiy, I. P. Stakhanov and A. A. Rukhadze for their valuable suggestions and advice. There are 4 references.

SUBMITTED: October 30, 1958

Card 3/3

STAVINSKIY, V. S., LYUBIMOV, A. L., LYKHACHEV, M. F.,

"Gas Cerenkov Counters of the K -Meson Channel of the Synchrotron"

Paper presented at the Intl Conference on High Energy Physics, Rochester, N. Y.
and/or Berkly California, 25 Aug - 16 Sep 1960.

VOVENKO, A.S.; LYUBIMOV, A.L.; SAVIN, I.A.; STAVINSKIY, V.S; STOYCHEV, T.T.

Cherenkov counter utilizing total internal reflection. Prib.i tekhn.
eksp. no.5:119-121 S-O '60. (MIRA 13:11)

1. Ob'yedinennyy institut yadernykh issledovaniy.
(Cherenkov radiation) (Nuclear counters)

16.8100,24.6510

77247
30V/89-8-2-12/30

AUTHORS: Mikhlin, E. Ya., Stavinskiy, V. S.

TITLE: A Study of Neutrons Interactions With He^4 , C^{12} , and O^{16} Nuclei Using Optical Model of Nucleus. Letter to the Editor

PERIODICAL: Atomnaya energiya, 1960, Vol 8, Nr 2, pp 141-143 (USSR)

ABSTRACT: In addition to its theoretical value, the analysis of interactions of low-energy neutrons with He^4 , C^{12} , and O^{16} nuclei is of practical importance for computations of transfer characteristics of most effective moderators. In this paper the authors attempt to extend the application of optical models of nucleus to detailed description of elastic neutron scattering on light nuclei He^4 , C^{12} , and O^{16} in the energy region of up to approximately 20, 10, and 6 mev, respectively. Small absorption cross section in the energy region discussed allowed the

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use of real potentials. The authors used a simplified rectangular potential in the usual way with a constant spin-orbital term $a_1(l, s)$ added to the depth of the effective rectangular potential. The authors point out that using such a simplified scheme one should allow the possibility that average potentials may be different for various partial waves. Also, due to the existence of the centrifugal barrier, neutrons with higher value of orbital angular momentum l are displaced toward the edge of the nucleus and spend most of the time in the "tail" of the potential. This is bound to produce, with increasing l , a decrease in the depth of the effective rectangular potential and an increase of its radius. This last situation occurs, however, only in light nuclei whose dimensions are comparable to the size of the regions with large potential gradients. The dominant feature of this paper is, according to the authors, the departure from the concept of one single rectangular

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potential common to all partial waves taking part in the scattering. To achieve a satisfactory description of the elastic neutron scattering, the parameters of the rectangular potential for each partial wave were chosen in such a way as to supply not only the right position and width of the single-particle resonances observed in the total cross section, but also to give the binding energy of the corresponding single particle bound states. Such states of the compound nucleus which correspond to the motion of the outer nucleon in the average potential of the remaining nucleus in its ground state the authors call the single-particle state. Reduced width of such a level must be of the order of the single-particle Wiegner limit. In the case of a rectangular well (radius R_0 , depth V_0), scattering phase is a known function of R_0 and V_0 .

$$\delta_{l,1/2} = \delta_{l,1/2}(r, V),$$

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Table 1. Values of R_0 , V_0 , and Q_1 .

Composite nucleus	Wave	R_0 , 10 ⁻¹³ cm	V_0 , mev	Q_1 , mev	Experimental data used
He^3	s	2.46	38.5		At low energies $\sigma_c = 0.8$ barn, phase analysis
	$p_{3/2}$	3.2	22.5	1.0	$p_{3/2}$ resonance at $E = 1.16 \pm 0.05$ mev; $\Gamma = 1.4 \pm 0.2$ mev phase analysis
	$p_{1/2}$		15.0		
C^{13}	s	2.75	70		At low energies $\sigma_c = 4.7$ barn, binding energy of the $2s$ level 1.66 mev
	$p_{3/2}$	3.0	37.5	3.0	The $3/2^-$ level with 3.69 mev excitation energy was assumed as "decay state"
	$p_{1/2}$		33.0		
	$d_{5/2}$	3.3	43	3.2	Binding energy of the basic state $p_{1/2}$ 4.95 mev; phase analysis
	$d_{3/2}$		35		
	$f_{7/2}$	3.7	29		Binding energy of the $d_{5/2}$ level 1.04 mev $d_{3/2}$ resonance at $E = 3.65$ mev; $\Gamma = 1.2$ mev Absorption and shape of maximum cross section at 20 mev

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Table 1 (cont'd)

Composite nucleus	Wave	$R_0, 10^{-13}$	V_0, meV	a_1, meV	Experimental data used
Og	s	4.0	37.6		Binding energy of s-level 3.27 meV; at $E \leq 0.1 \text{ meV}$; $\sigma_r = 3.5 \text{ barns}$; s-resonance at $E = 2.44 \text{ meV}$
	$\frac{1}{2} \frac{1}{2}$	4.0	29.6	3.5	The $\frac{1}{2} \frac{1}{2}$ level with 7.0 meV excitation energy was assumed to be "decay state"; phase analysis
	$\frac{1}{2} \frac{3}{2}$		24.4		The $\frac{1}{2} \frac{3}{2}$ level with 3.00 meV excitation energy was assumed to be "decay state"; phase analysis
	$\frac{3}{2} \frac{1}{2}$ $\frac{3}{2} \frac{3}{2}$	4.0	34.01 25.88	3.25	Binding energy of the basic state $\frac{3}{2} \frac{1}{2}$ 4.14 meV $\frac{3}{2} \frac{3}{2}$ resonance at $E = 1.00 \text{ meV}$; $\Gamma = 0.1 \pm 0.01 \text{ meV}$
	$\frac{5}{2} \frac{1}{2}$	4.7	33.2		Binding energy of the $\frac{5}{2} \frac{1}{2}$ level 0.24 meV; Maximum cross section at 30 meV

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Using these values for R_0 and V_0 , the authors calculated phases, total cross sections, and angular distributions of elastically scattered neutrons in nuclei under study. The construction of the non-single-particle resonances were computed using the Breit-Wigner formula. The authors claim that the calculation reproduces well the general trend of the total cross sections. Angular distributions show some discrepancies with the measured values for carbon and oxygen, which can be explained by the errors in V_0 and R_0 of the p-wave, since in absence of other information the authors used corresponding equations developed by Adair (see reference). In that case there is possible a large departure from the independent-particle model, causing an error in determination of those parameters. In other cases each pair of parameters allowed a description of the bound states and scattering in a large range

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of energies. This enabled the authors to compute
 angular distribution of scattered neutrons on He^4
 and O^{16} for energies at which there are no experi-
 mental data. Table 2 contains the calculated average
 values of the cosines of the scattering angle

$\langle \cos \theta \rangle$ and the average logarithm of the energy
 loss ξ . A value of the neutron slowdown length in
 water computed from Table 2 agrees satisfactorily
 with experimental data by Kochergin and Orlov
 (Atomnaya energiya, 6, Nr 1, 34 (1959)). The authors
 note that the $\langle \cos \theta \rangle$ values for oxygen computed by
 Zweifel and Hurwitz (see reference) using data by
 Baldinger, Huber, and Proctor (Helv. phys. acta, 25,
 142 (1952)) are in complete contradiction with those
 data. Their $\langle \cos \theta \rangle$ curve vs E_n gives negative
 values in the E_n region between approximately 2 and
 2.5 mev, while the experimental data exclude any

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Table 2. Values of $\langle \cos \theta \rangle$ and ξ .

O^{16}			C^{12}			O^{16}			C^{12}		
E_n, mev	$\langle \cos \theta \rangle$	ξ	E_n, mev	$\langle \cos \theta \rangle$	ξ	E_n, mev	$\langle \cos \theta \rangle$	ξ	E_n, mev	$\langle \cos \theta \rangle$	ξ
0,41	-0,09	0,136	0,55	0,11	0,148	2,9	0,19	0,101	4,5	0,49	0,085
0,435	0,276	0,091	1,0	0,13	0,145	3,1	0,25	0,094	5,0	0,54	0,077
0,48	0,49	0,064	1,5	0,19	0,135	3,3	0,18	0,103	6,0	0,69	0,052
0,7	0,15	0,106	2,0	0,16	0,140	3,5	0,27	0,091	6,3	0,75	0,042
0,9	0,079	0,115	2,07	0,09	0,151	3,8	0,39	0,077	6,6	0,5	0,083
1,03	0,059	0,118	2,5	0,16	0,140	4,1	0,35	0,081	7,2	0,15	0,141
1,1	0,037	0,120	2,9	0,18	0,137	4,4	0,51	0,061	7,4	0,32	0,113
1,32	0,42	0,073	3,0	0,27	0,122	4,7	0,37	0,079	8,0	0,50	0,083
1,41	0,16	0,105	3,3	0,13	0,145	7,0	0,23	0,096	9,0	0,50	0,083
2,0	0,12	0,111	3,66	0,06	0,156	14	0,37	0,079	10	0,51	0,082
2,4	0,14	0,108	4,1	0,30	0,117				14	0,21	0,132

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A Study of Neutrons Interactions With He^4 ,
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 Nucleus. Letter to the Editor

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possibility for $\langle \cos \theta \rangle$ to be negative. The fact that the optical model describes well the elastic scattering of neutrons of sufficiently small energies on He^4 , C^{12} , and O^{16} is probably due to the stability of these nuclei. The incoming neutron interacts, therefore, only weakly with them, and does not introduce nuclear deformation, and one can talk about an interaction of the neutrons with the nucleus as a whole. A. S. Davidov, L. N. Usachev, and V. N. Neudachin showed interest and gave critical remarks. There are 2 tables; and 7 references, 1 Soviet, 1 Swiss, 5 U.S. The U.S. references are: F. Ajzenberg, T. Lauritsen, Rev. Mod. Phys., 27, 77 (1955); D. Hughes, J. Harvey, Neutron Cross Sections, U.S.A., BNL-325 (1955); H. Feshbach, C. Porter, V. Weisskopf, Phys. Rev., 96, 448 (1954); P. Zweifel, H. Hurwitz, J. Appl. Phys., 25, 1241 (1954); R. Adair. Phys. Rev., 92, 1491 (1953).

SUBMITTED:
 Card 10/10

May 30, 1959

VOVENKO, A.S.; KULAKOV, B.A.; LIKHACHEV, M.F.; LYUBIMOV, A.L.; MATYLENKO,
Yu.A.; SAVIN, I.A.; STAVINSKIY, V.S.

[Differential Cherenkov gas counters] Differentsial'nyi gazovyi
cherenkovskii schetchik. Dubna, Ob"edinennyyi institut iadernykh
issledovaniy, 1961. 11 p. (MIRA 14:10)
(Nuclear counters)

TOLSTIKOV, V.A.; KOLESOV, V.Ye.; STAVINSKIY, V.S.

Calculating the neutron cross sections for tungsten with the
aid of an optical nuclear model. Atom. energ. 11 no.1:56-58
Jl '61. (MIRA 14:7)

(Neutrons) (Nuclear models)

LIKHACHEV, M.F.; STAVINSKIY, V.S.; SYUY YUYN'-CHAN; CHZHAN NAY-SEN'
[Chang Nai-sen]

Total cross sections of the interaction of K^+ and π^+ -mesons having
pulse energies of 4.75 and 3.7 bev/c with protons and nuclei. Zhur.
eksp.i teor.fiz. 41 no.1:38-41 J1 '61. (MIRA 14:7)

1. Ob'yedinennyy institut yadernykh issledovaniy.
(Synchrotron) (Mesons) (Protons)

KOVALEV, V.P.; STAVINSKIY, V.S.

Correlation between the mean number and mean energy of prompt
fission neutrons and the properties of the fissionable nucleus.
Zhur.eksp.i teor.fiz. 41 no.4:1304-1306 0 '61. (MIRA 14:10)
(Nuclear fission)

STAVINSKIY, V.S.

VOVENKO, A. S., KULAKOV, B. A., LIKHACHEV, M. F., MATULENKO, Yu. A., LYUBIMOV, L. L.,
SAVIN, I. A., SMIRNOV, E. V., and STAVINSKIY, V. S.

"Elastic Scattering of η^+ -Mesons on Hydrogen on the 180° Angle"

Report presented at the Intl. Conference on High Energy Physics, Geneva,
4-11 July 1962

Joint Institute for Nuclear Research
Laboratory of High Energies, Dubna, 1962

STAVINSKIY, V. S.

KULAKOV, B. A., LIKHACHEV, M. F., MATULENKO, Yu. A., SAVIN, L. A., SMIRNOV, Ye. V.
and STAVINSKIY, V. S.

"Total Cross-Sections of K^+ - Mesons with Hydrogen at the Momenta From
3, 0 to 5, 0 GeV/c"

report presented at the Intl. Conference on High Energy Physics, Geneva,
4-11 July 1962

Joint Inst. for Nuclear Research
Lab. of High Energies, Dubna, 1962

STAVINSKIY V.S.

VOVENKO, A. S., KULAKOV, B. A. LUKHACHEV, M. F., LYUBIMOV, L. I., MATULENKO, Yu. A.,
SAVIN, I. A. SMIRNOV, Ye. V., STAVINSKIY, V. S. IJIN-CHANG, Sul, IJAN-FU, Khe

"Inelastic Interactions of K^+ - Mesons with Hydrogen"

report presented at the Intl. Conference on High Energy Physics, Geneva,
4-11 July 1962

Joint Institute for Nuclear Research
Laboratory of High Energies, Dubna, 1962

STAVINSKIY, V.S.

S/120/62/000/002/009/047
E039/E520

AUTHORS: Vovenko, A.S., Kulakov, B.A., Likhachev, M.F.,
Lyubimov, A.L., Matulenko, Yu.A., Savin, I.A. and
Stavinskiy, V.S.

TITLE: A differential gas Cherenkov counter

PERIODICAL: Priory i tekhnika eksperimenta, no.2, 1962, 49-52

TEXT: A detailed description is given of a differential gas Cherenkov counter developed in the high energy laboratory of OIYaI in 1959 and used in the beam of the synchrophasotron for the detection of K-mesons in pulses of 3-5 GeV. Cherenkov radiation from particles moving through the gas in the counter is focused by a spherical aluminium coated mirror onto a circular diaphragm placed in front of a perspex plug through which the light passes and is detected with a CY-24 (FEU-24) photomultiplier. The plane of the photocathode is perpendicular to the direction of the particle beam, which has a maximum diameter of 10 cm, and the axis of the photomultiplier is displaced about 12 cm from it. A more detailed discussion of the optical aberrations is given. The radiation tube is about 1.5 m long and is lined with black velvet to reduce the background count; this
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A differential gas Cherenkov counter S/120/62/000/002/009/047
E039/E520

reduced the effective working length to 0.7 m. A photomultiplier with high quantum efficiency and large amplification is necessary and the electronic circuitry is sensitive to a pulse corresponding to one photoelectron from the cathode of the photomultiplier. The variation of efficiency with air pressure was determined and it is shown that a background count appears at pressures greater than ~ 25 atm. This background can be reduced further, to ~ 1 to 2%, by using gases such as ethane and ethylene. Peak efficiency is at about 10 atm for air and K-mesons and π -mesons can be separated in pulses up to 6 GeV/s. There are 4 figures.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy
(Joint Institute for Nuclear Research)

SUBMITTED: August 17, 1961

Card 2/2

VOVENKO, A.S.; KULAKOV, B.A.; LIKHACHEV, M.F.; LYUBIMOV, A.L.; MATULENKO,
Yu.A.; SAVIN, I.A.; STAVINSKIY, V.S.

Differential gas-discharge Cherenkov counter. Prib. i tekhn.
eksp. 7 no.2:49-52 Mr-Apr '62. (MIRA 15:5)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Nuclear counters)

S/089/62/013/004/006/011
B102/B108

AUTHORS: Aleksov, V. Ye., Stavinskiy, V. S.

TITLE: Calculation of the U^{238} neutron cross sections on the basis of a nuclear optical model

PERIODICAL: Atomnaya energiya, v. 13, no. 4, 1962, 371 - 373

TEXT: Using a nuclear optical model; the following cross sections were calculated for U^{238} : total cross section σ_t , compound nucleus formation cross section σ_c , inelastic neutron scattering cross section σ_{in} , radiative capture cross section $\sigma_{n\gamma}$, and transport cross section σ_{tr} . The numerical calculations were carried out on a "Strela" computer, using formulas and data from various published sources. The potential was formulated as

$$V(r) = - \frac{44(1+0.075i)}{1+\exp(\frac{r-7.72}{0.60})}$$

σ_c , σ_{tr} , and σ_t were calculated for the energy range 40 kev to 16 Mev and compared with experimental values. Agreement Card 1/4

6/089/62/013/004/006/011
B102/B108

Calculation of the U^{238} ...

was very good for σ_t and σ_{tr} . The level excitation functions for inelastic neutron scattering were calculated according to Hauser and Feshbach (Phys. Rev., 87, 456 (1952)) and $\sigma_{n\gamma}$ from a formula of Margolis (Phys. Rev., 38, 327 (1952)). The U^{238} level scheme adopted corresponded to that of Pu^{238} . The theoretical data were again compared with experimental results (Phys. Rev., 103, 2063 (1953)), which agreed as regards σ_t and the excitation functions of the first levels 2^+ (44 kev) and 4^+ (145 kev). σ_{in} equals the sum of the excitation cross sections for 1^- (605 kev) and 3^- (656 kev). The results indicate that the optical model for U^{238} describes σ_t , σ_{tr} , and the individual components of σ_t well. There are 3 figures.

SUBMITTED: February 22, 1962

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